DOOSAN Document Transmittal Upper Trishuli-1 HEP (216MW)		Date 2022-03-10	DT No.: UT1-HEP-DHI-PC-D-0013	SHEET 1 OF 1
DOOSAN NEPAL BRANCH OFFICE	Address & Contact No. : Four Square Building, Naxal, Kathmandu, Nepal (P.O Box : 1387) + 977 1 692 3014	Project No. H20002	DOCUMENT DISPATCHED BY Courier Service ☐ Messenger ☐ Post-Air Freight ☐ Document System or E-mail ■ By hand ■	
DOCUMENT DISTRIBUTION	■ POWER CHINA (Subcontractor) ☐ Doosan's Site Office			
SUBJECT	Review Note RN-0081_Layout of Access Tunnel for DS gate operating House of Desander			

S. N.	REVIEW NOTE NO.	REVIEW STATUS	DWG. / DOC. NO.	REV.	DWG. TITLE / DOC. DESCRIPTION	REMARK
1	RN-0081	FI	UT1-C-030-CVL-DG-51001	0A	Layout of Access Tunnel for DS gate operating House of Desander	3 SHEET
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Received by :

Date :

Legend of Review Status
A : APPROVED
AN : APPROVED AS NOTED
RR : RETURN FOR RESUBMISSION
FI : FOR INFORMATION

DHI STAMP

Doosan Heavy Industries & Construction Co.,Ltd. DOOSAN Branch Office Nepal

Issued by DHI

Youngsoo Son

Project Manager

Email: youngsoo.son@doosan.com
Doosan Heavy Industries & Construction Co., Ltd.

Discipline : Civil

UPPER TRISHULI-1 HEP (216MW)

Client	**Nepal Water and Energy Development Company Private Limited**
Owner's Engineer	**Tractebel Engineering GmbH / Jade Consult**

REVIEW NOTE

Contractor	**Doosan Heavy Industries & Construction Co., Ltd.**		
Title of the Document	Layout drawing of access tunnel for DS gate operating house of desander, sheets 1-2		
Document No.	UT1-C-030-CVL-DG-51001	Revision	0A
Date of Documents	12.08.2021	Received Date	19.08.2021
Transmittal Form No.	UT1-HEP-DHI-D-0032		
Previous Review Date/Status	N/A	Prev. Review Note No.	N/A
Review Note No.	**RN-0081**	**Present Review Date**	**08.03.2022**
		Present Review Status	**FI**

A: Approved AN: Approved as Noted RR: Returned for Resubmission FI: For Information, only.

General comments:

- The document under this review is part of the Design Optimization Proposal Procedure. Only comments in technical aspects are given.
- The submitted document under this review is considered incomplete. It only comprises arrangement drawings of the Access Tunnel to the D/S Gate Chambers of the Desander without any report regarding design assumptions or explanations attached or listed in the reference drawings/ documents.

Further OE´s comments are indicated in red in the Annex.

ANNEX:

UT1-C-030-CVL-DG-51001_0A sheets 1 to 2, comments

DISCLAIME

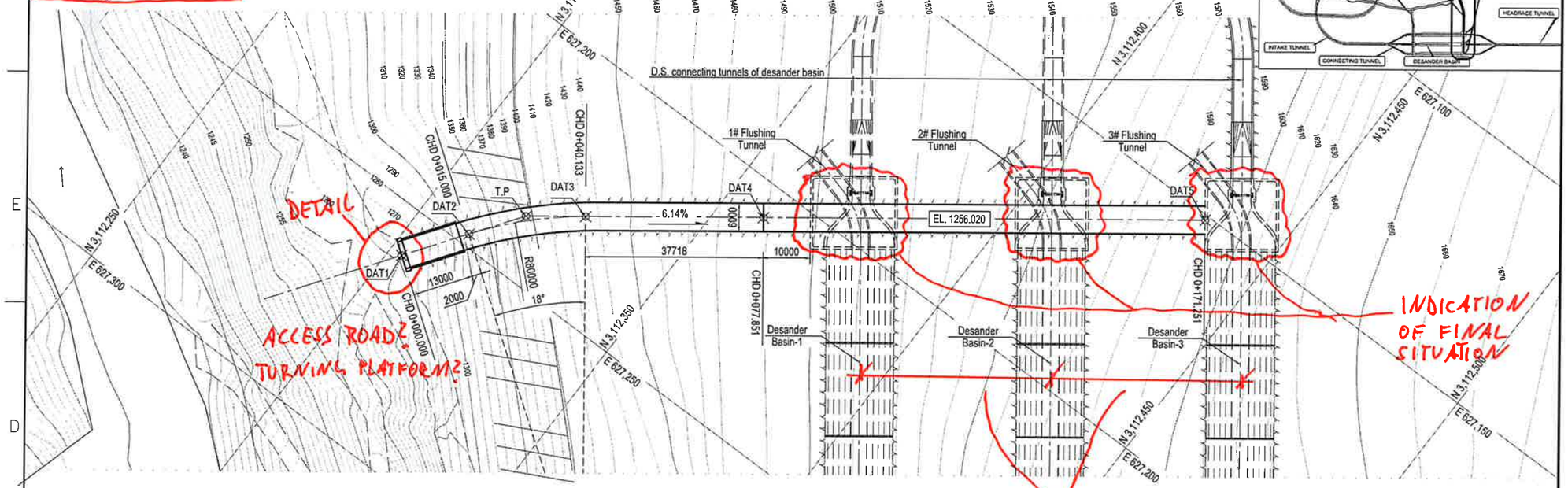
Any approval will not release the Contractor from any of his obligations under the Contract.

Sebastian Beck, Chief Design Engineer

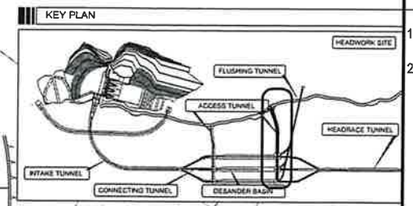
ANNEX 1.12
RN-0081
08/03/2022

GENERAL PLAN OF ACCESS TUNNEL FOR D/S GATE OPERATING HOUSE OF DESANDER BASIN

1:500



KEY PLAN



NOTE

1. ~~This set of drawings are layout drawing of access tunnel for D/S gate operating house of desander basin.~~
2. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.

ALREADY IN TITLE BLOCK

Legend:

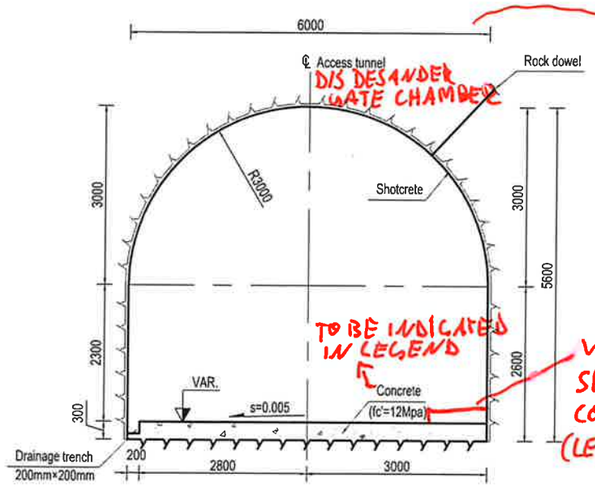
- Inferred boundry between moderately weathered and slight weathered
- Excavation line
- Inferred ground water level
- surface of 1st concrete
- section of 1st concrete

1st stage concrete
↳ CLASS/STRENGTH TO BE INDICATED/ REINFORCED?

Scale:
1:500 0 5 10 15 20 25m
1:50 0 0.5 1 1.5 2 2.5m

TYP. SECTION OF D.S. ACCESS TUNNEL FOR ROCK I, II, IIIa AND IIIb

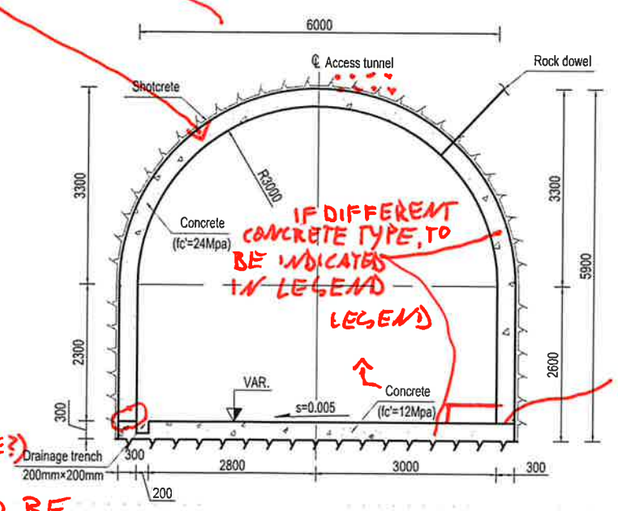
1:50



TYP. SECTION OF D.S. ACCESS TUNNEL FOR PORTAL AND ROCK IV, V

1:50

SAME EXCAVATION DIMENSIONS?



- DIMENSIONS HAVE TO BE CONFIRMED BY SUPPLIER (E.G. GATE TRANSPORTATION)
- IN GENERAL LAYOUT DRAWINGS ALL INFRASTRUCTURE (CABLE WAYS, PIPES, ...) SHALL BE SHOWN

REFERENCE DRAWINGS

	DESANDER ROCK SUPPORT

SYMBOL AND LEGEND

APPROVAL

FOR REVIEW

THIS DRAWING AND THE INFORMATION CONTAINED HEREIN ARE PRELIMINARY FOR REVIEW. IT CAN BE CHANGED IN THE EXECUTION STAGE.
THIS DRAWING IS THE PROPERTY OF DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO., LTD. IT IS NOT TO BE COPIED OR USED IN ANY WAY DETRIMENTAL TO THE COMPANY.

EXAMPLE: OB DATE AS RN-0081

REV. NO.	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.
0 A	12.AUG., 2021	FOR REVIEW	WANG H.Q.	ZHANG J.Q	LI W.G. LIU Y.Z.

IF REVISIONS EXISTING, RN-NUMBER SHOULD BE MENTIONED HERE

PROJECT TITLE
Upper Trishuli-1 HEP (216MW)

OWNER
NWEDC

OWNER'S ENGINEER
TRACTEBEL ENGIE
IDC CONSULT

CONTRACTOR
DOOSAN Doosan Heavy Industries & Construction

DRAWING TITLE
LAYOUT DRAWING OF ACCESS TUNNEL FOR D/S GATE OPERATING HOUSE OF DESANDER BASIN (1/2)

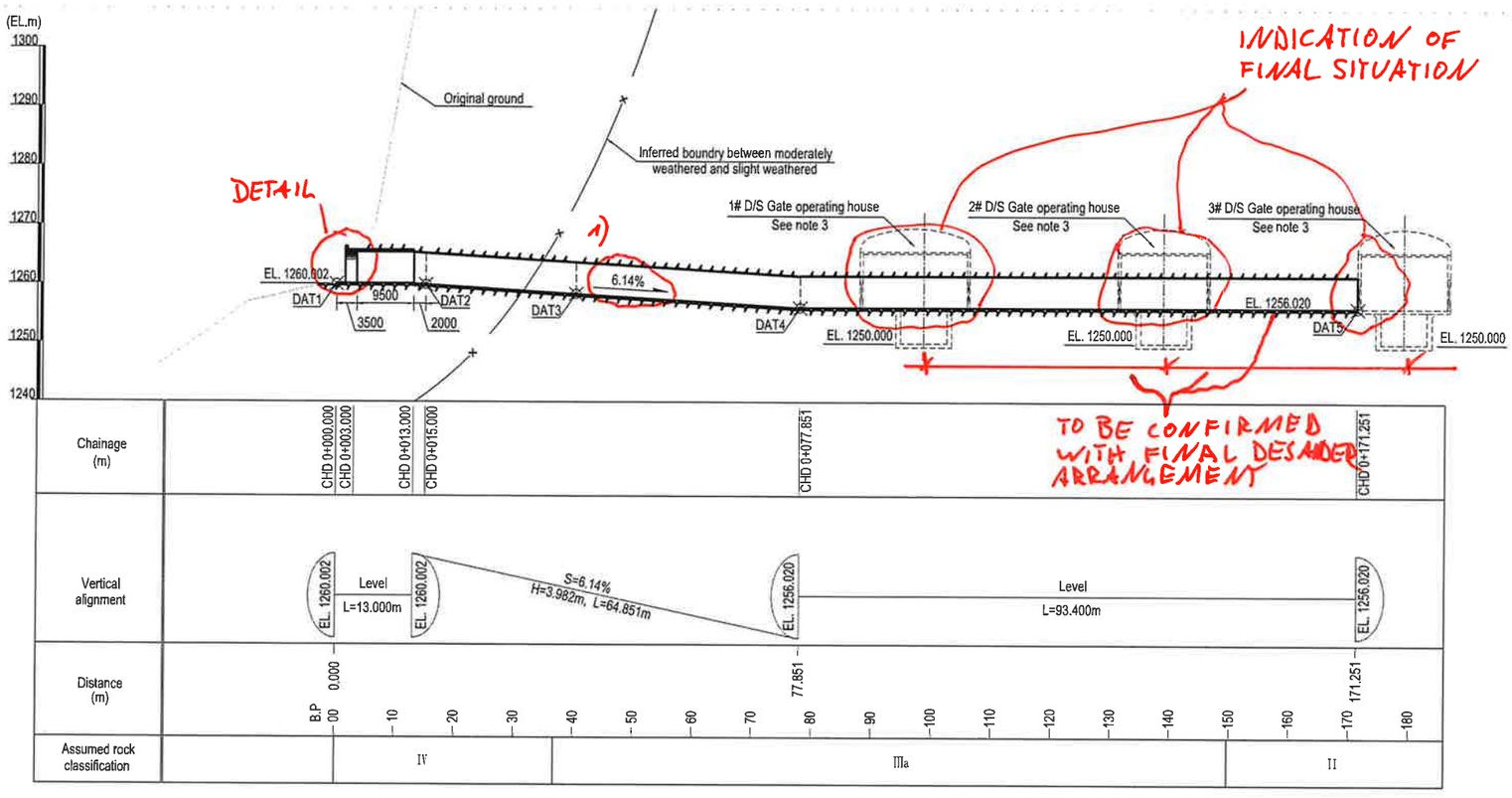
INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-030-CVL-DG-51001	1 OF 2	0 A

A1 (594 x 841 MM)

ANNEX 2/2
RN-0081
08103/2022
Ydt: Rdz

LONGITUDINAL PROFILE OF ACCESS TUNNEL FOR D/S GATE OPERATING HOUSE OF DESANDER BASIN

1:500



COORDINATES AND CHAINAGES OF CONTROL POINTS

TO BE CONFIRMED WITH FINAL DESANDER ARR.

Point No.	X(N) (m)	Y(E) (m)	Z(Level) (m)	Chainages (m)	Remark
DAT1	3112302.805	627259.796	1260.002	CHD 0+000.000	B.P
DAT2	3112311.453	627247.541	1259.879	CHD 0+015.000	
T.P	3112318.759	627237.188	/	CHD 0+027.567	T.P
DAT3	3112328.906	627229.600	1258.336	CHD 0+040.133	
DAT4	3112359.112	627207.012	1256.020	CHD 0+077.851	
DAT5	3112433.910	627151.076	1256.020	CHD 0+171.251	E.P

1) AS THE TUNNEL DESCENTS INTO THE MOUNTAIN, DRAINAGE SYSTEM BY GRAVITY (E.G. VIA DESANDER FLUSHING TUNNEL) SHALL BE CONSIDERED.

E.G.: SITE COMPONENT / PACKAGE / STRUCTURE / DG TYPE

NOTE

1. ~~This set of drawings are layout drawing of D.S. access tunnel for desander basin.~~
2. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.
3. ~~Location and layout of downstream (D.S.) Gate operating houses shall be shown in subsequent drawings.~~

NO!

Legend:

- Inferred boundry between moderately weathered and slight weathered
- Excavation line
- Inferred ground water level
- surface of 1st concrete
- section of 1st concrete

Scale: 1:500 0 5 10 15 20 25m

COMMENTS OF SHEET 1/2 AR APPLICABLE

REFERENCE DRAWINGS

SYMBOL AND LEGEND

APPROVAL

~~FOR REVIEW~~

THIS DRAWING AND THE INFORMATION CONTAINED HEREIN ARE PRELIMINARY FOR REVIEW. IT CAN BE CHANGED IN THE EXECUTION STAGE.
THIS DRAWING IS THE PROPERTY OF DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO., LTD. IT IS NOT TO BE COPIED OR USED IN ANY WAY DETRIMENTAL TO THE COMPANY.

REV. NO.	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.
X	12.AUG., 2021	~~FOR REVIEW~~	WANG H.Q.	ZHANG J.Q.	LI W.G. LIU Y.Z.

PROJECT TITLE
Upper Trishuli-1 HEP (216MW)

OWNER
NWEDC

OWNER'S ENGINEER
TRACTEBEL ENGIE
tede CONSULT

CONTRACTOR
DOOSAN Doosan Heavy Industries & Construction

DRAWING TITLE
LAYOUT DRAWING OF ACCESS TUNNEL FOR D/S GATE OPERATING HOUSE OF DESANDER BASIN (2/2)

INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-030-CVL-DG-51001	2 OF 2	6A

A1 (594 x 841 MM)

?